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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,352	02/05/2004	William R. Ratcliffe	024-25-002	6815

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EXAMINER	
PERRY, ANTHONY T	
ART UNIT	PAPER NUMBER
2879	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/773,352	RATCLIFFE, WILLIAM R.	
	Examiner	Art Unit	
	Anthony T. Perry	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *9,10,13,14 and 18-27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,11,12,15-17 and 28-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/05/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-8, 11-12, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Carley (US 3,860,847).

Regarding claims 1 and 15, Carley discloses a light-emitting structure, comprising: a semiconductor light-emitting diode having an anode (P) and a cathode (N); and a resistive member (R) carried over at least one of said anode (P) and said cathode (N) (for example, see Fig. 5).

Regarding claim 2, the resistive member inherently has a resistivity and a cross section configured to realize a predetermined resistance.

Regarding claims 3-5, Carley teaches that the resistive member can be a thin film resistor or thick film resistor (for example, see col. 3, lines 36-39).

Regarding claim 7 Carley shows the resistive member (R) carried over said anode (P) and further including an interconnect member (26) coupled to the cathode (N).

Regarding claim 8, the interconnect member (26) is coupled through at least one contact (where the wire is connected to the cathode side).

Regarding claim 11, Carley teaches that the resistive member (R) may also be carried over the cathode, in which case the interconnect member (26) would be coupled to the resistive member (for example, see col. 3, lines 36-40).

Regarding claim 12, the interconnect member inherently is coupled through a contact.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 16-17, and 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carley (US 3,860,847).

Carley does not specifically recite a conductive film inserted between the resistive member and the light-emitting diode. However, it is well known in the art to include a conductive layer on the anode and cathode surfaces of LED's in order to ensure a good contact service is provided for connection of the LED's. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide conductive surfaces to the cathode and anode surfaces of the LED's such that a conductive layer is formed between the LED and the resistive member in order to ensure proper electrical contact to the LED.

Regarding claims 16-17, Carley does not specifically recite the LED member being a polymeric organic type LED. However, it is well known that polymeric organic LED's are becoming the preferred type of LED's since they are light-weight, flexible, and operate on lower voltages than semiconductor type LED's. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a polymeric type LED instead of the semiconductor type LED, since polymeric organic type LED's require lower voltages and are can be deposited on large areas using simple techniques such as ink-jet printing or spin-coating.

Regarding claims 28 and 35, Carley discloses a light-emitting structure, comprising: a semiconductor light-emitting diode having an anode (P) and a cathode (N); and a resistive

member (R) carried over at least one of said anode (P) and said cathode (N) (for example, see Fig. 5). Carley does not specifically teach the resistive member being two separate members spaced apart from one another. However, it would have been obvious to one of ordinary skill in the art at the invention was made to form the resistive member into two spaced parts, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

Regarding claim 29, Carley does not specifically recite a conductive film inserted between the resistive member and the light-emitting diode. However, it is well known in the art to include a conductive layer on the anode and cathode surfaces of LED's in order to ensure a good contact service is provided for connection of the LED's. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide conductive surfaces to the cathode and anode surfaces of the LED's such that a conductive layer is formed between the LED and the resistive member in order to ensure proper electrical contact to the LED.

Regarding claim 30, each of the resistive members would inherently have a resistivity and a cross section configured to realize a predetermined resistance.

Regarding claim 31, Carley teaches that the resistive member (R) may also be carried over the cathode, in which case the interconnect member (26) would be coupled to the resistive member (for example, see col. 3, lines 36-40).

Regarding claims 32-34, Carley teaches that the resistive member can be a thin film resistor or thick film resistor (for example, see col. 3, lines 36-39).

Regarding claims 36-37, Carley does not specifically recite the LED member being a polymeric organic type LED. However, it is well known that polymeric organic LED's are becoming the preferred type of LED's since they are light-weight, flexible, and operate on lower

voltages than semiconductor type LED's. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a polymeric type LED instead of the semiconductor type LED, since polymeric organic type LED's require lower voltages and are can be deposited on large areas using simple techniques such as ink-jet printing or spin-coating.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is **(571) 272-2459**. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. **The fax phone number for this Group is (571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2879
February 7, 2007